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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/246,271	02/08/1999	YOERI APTS	450117-4840	5970

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EXAMINER

HO, THE T

ART UNIT

PAPER NUMBER

2126

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/246,271

Applicant(s)

APTS ET AL.

Examiner

The T. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed 9/16/2002.
2. Claims 1-21 have been examined and are pending in the application.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

- It does not have the signatures from the inventors.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-8, 10-12, 15-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer U.S Patent No. 6,393,496 in view of Fishler U.S Patent No. 5,954,794.

As to claim 1, Schwaderer discloses communication (Fig. 3) between an application program (32, Fig. 3) and a network device driver program (34, Fig. 3) through intermediate structure software (20, and 38, Fig. 3); supplying of application

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data units (sends the data, lines 20-21 column 8) from the application program (application program, line 20 column 8) to a first program object (20, Fig. 3); performing of first functions (52, Fig. 3) of the first program object on the application data units; supplying of resulting first data units from the first program object (arrow going from 52 to 38, Fig. 3) to a second program object (38, Fig. 3); performing of second functions (reads, and translates, lines 22-27 column 8) of the second program object on the first data units; supplying of the resulting second data units (is sent, line 27 column 8) to the network device driver program (34, Fig. 3). However, Schwaderer does not disclose passing references. Fishler teaches passing references pointing to memory locations (participating in data I/O by reference, lines 62 column 15). It would have been obvious to apply the teachings of Fishler to the system of Schwaderer because this provides run-time efficiency and allows a data source to manipulate the I/O queues of any other data source as disclosed by Fishler (line 62 column 15 to line 6 column 16).

As to claim 2, Schwaderer as modified further discloses data units are supplied over interconnecting queue-objects (functionality and corresponding modules, lines 47-56 column 9).

As to claim 3, Schwaderer as modified further discloses the memory locations of the data units are the same (lines 19-30 column 4).

As to claim 5, Schwaderer as modified further discloses adding program objects during run time (lines 28-46 column 9).

As to claim 6, Schwaderer as modified further discloses removing program objects during run time (lines 47-64 column 9).

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As to claim 7, Schwaderer as modified further discloses after performing of functions of a program object and supplying data units to a further program object, additional functions (50, Fig. 3) of the program object (20, Fig. 3) are performed.

As to claim 8, Schwaderer as modified further discloses adding information (encapsulating the data with the proper headers and trailers, lines 25-26 column 8) to data units.

As to claim 10, Schwaderer as modified further discloses service data units (ite_path_dup(), line 46 column 8) containing one or more data units.

As to claim 11, Schwaderer as modified further discloses referencing data units with a reference (creates new path ID which references same path, lines 46-47 column 8) to the service data unit.

As to claim 12, Schwaderer as modified further discloses a specialized execution environment for communication (45, and 47, Fig. 3) between the application program (32, Fig. 3) and the network device driver program (12, Fig. 3).

As to the system of claim 15, note the discussion of the method of claim 1.

As to claim 16, Schwaderer as modified further discloses service data units are stored in a memory part using references (lines 46-47 column 8).

As to claim 17, Schwaderer as modified further discloses a SDU manager (ite_path_dup(), line 46 column 8).

As to the method of claim 18, it is the reverse mode of the method of claim 1. Schwaderer as modified teaches his method can be performed in reverse manner through the read (50, Fig. 3) data (lines 28-30 column 8).

As to claim 20, Schwaderer as modified further discloses the data units are stored in non-contiguous portions of memory (30, Fig. 3).

As to claim 21, Schwaderer as modified further discloses the specialized execution environment forms network protocol layers (OSI, line 34 column 10) and the program objects are in respective network protocol layers (lines 30-39 column 10).

5. Claims 4, 13, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of Jardine U.S Patent No. 5,619,647.

As to claim 4, Schwaderer as modified does not disclose queue-objects priorities. Fishler teaches a scheme where queue are provided with different priorities (line 59 column 8 to line 4 column 9). It would have been obvious to apply the teachings of Jardine to the system of Schwaderer because this provides vital importance to computer systems such as quick sending and receiving messages as disclosed by Jardine (lines 12-23 column 2).

As to claim 13, Jardine further discloses data units are organized in data unit pools (queued messages sent on channels 2 and 3, lines 39-40 column 7) adapted to the specific use thereof (lines 29-43 column 7).

As to claim 19, Jardine further discloses within a queue-object two or more priorities for passing of data units are provided (lines 3-43 column 7).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of Tanenbaum.

As to claim 9, Schwaderer as modified does not disclose dividing and uniting data units. Tanenbaum teaches data unit is breaking up into smaller units and then these units later are joining back together (last complete paragraph of page 11 to complete page 12). It would have been obvious to apply the teachings of Tanenbaum to the system of Schwaderer because this provides easy management to all network design as disclosed by Tanenbaum (last two paragraphs of page 12).

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwaderer in view of Fishler and further in view of Phillips U.S Patent No. 6,289,393.

As to claim 14, Schwaderer does not disclose a naming service. Phillips discloses a naming service for mapping between names and object references (lines 47-62 column 8). It would have been obvious to apply the teachings of Phillips to the system of Schwaderer because this would provide appropriate destination for the objects.

Response to Arguments

8. Applicant's arguments filed 9/16/2002 have been fully considered but they are not persuasive.

Applicant argued that Schwaderer does not disclose passing references (remarks, lines 1-2 second paragraph page 6). In response, Schwaderer was not used to teach passing references. Passing references was taught by Fishler as clearly disclosed in the claim rejection above.

Applicant argued that Schwaderer does not disclose limitations as claimed in the new claims 20-21 (remarks, first and second paragraphs page 7). In response, the applicant argued limitations that are disclosed in the specification but not claimed before. However, these limitations are still met by the cited references as discussed in the claim rejection above.

Applicant argued that the cited references do not disclose passing references to the same memory location (remarks, lines 2-3 second paragraph page 8). Again, the applicant argued limitations that are disclosed in the specification but not claimed before. However, these limitations are still met by the cited references as discussed in the claim rejection above.

Applicant argued that Schwaderer does not disclose program objects in an intermediate software structure (remarks, lines 8-9 page 9). In response, the limitations are clearly met by the cited reference as discussed in the claim rejection above. Schwaderer discloses (Fig. 3) a system in which data of the application program 32 goes through an intermediate software structure that includes program objects 20 and 38 in order to get to the network device driver 34.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to The T. Ho whose telephone number is 703-306-5540. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Thursday, 8:30 am – 6:00 pm, and every other Friday from 8:30 am – 5:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C 20231

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (703) 746 – 7238
- OFFICAL faxes must be signed and sent to (703) 746 – 7239
- NON OFFICAL faxes should not be signed, please send to (703) 746 – 7240


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t.h

December 1, 2002



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